

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
PUBLIC MEETING AND COMMENTS ON THE  
PREFERRED CITYWIDE REMEDY  
HIGHBRIDGE GREEN SCHOOL  
BRONX, NEW YORK

ADDRESSING POLYCHLORINATED BIPHENYLS (PCBs)  
PRESENT IN THE CITY'S SCHOOLS  
May 28, 2014

Reported by:

Maria R. Lucarelli

Job No. 11923

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T R A N S C R I P T of the proceedings  
in the above-entitled matter being taken by MARIA  
R. LUCARELLI, a Notary Public of the State of New  
York, held at the HIGHBRIDGE GREEN SCHOOL, 200 West  
167th Street, Bronx, New York 10452.

1 PUBLIC MEETING EPA PRESENTER:

2 JAMES S. HAKLAR, Ph.D, P.E.  
3 PCB COORDINATOR  
4 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
5 REGION 2  
6 2890 Woodbridge Avenue, Building 10  
7 Edison, New Jersey 08837

8 PUBLIC MEETING CITY PRESENTER:

9 EDWARD A. GERDTS, CIH, CSP, LEED AP  
10 TRC  
11 VICE PRESIDENT  
12 NATIONAL PRACTICE LEADER  
13 BUILDING SCIENCES AND INDUSTRIAL HYGIENE  
14 PILOT STUDY PROJECT TEAM  
15 1430 Broadway, 10th Floor  
16 New York, New York 10018  
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1 (THE PROCEEDING OPENED AT 6:45 P.M. AS FOLLOWS:)

2  
3 MS. AYALA: Good evening. My name is  
4 Wanda Ayala and I'm the Community Involvement  
5 Coordinator for the EPA Region 2 in New York City.  
6 I'd like to welcome everyone here tonight. Given  
7 that we have a small crowd, I'd like for everybody  
8 to come and sit up close, here (indicating).

9 For the record, I want to state that EPA  
10 and the Department of Education have provided  
11 interpreters for those who would have needed it in  
12 attendance for the Spanish speakers.

13 We have Ms. Jamieson, and Robert Walser,  
14 and Mark Maddaloni, present here at the meeting  
15 with us.

16 I'm just going to go straight into the  
17 reason why the team and why we're here. We're here  
18 tonight to get the public's input and comments on  
19 the New York City's Report on the presence of PCBs  
20 in schools. From the EPA, we have Jim Haklar, who  
21 will your presenter, Susan Schulz, and John Gorman,  
22 and other subject matters experts, in attendance to  
23 answer your questions. From New York City, we have  
24 Ed Gerdt, who will be the presenter. John  
25 O'Connor, Aaron Lambert, and Ross Holden, who will

1 answer questions also.

2           The way the meeting is going to go is:  
3 We're going to have a brief presentation; the EPA  
4 that's going to go into a presentation, but the  
5 City's is within our presentation, that's going to  
6 take about fifteen minutes or shorter; and then  
7 we're going to open up the floor for comments and  
8 questions.

9           And, having said that, I pass the  
10 microphone to Jim.

11           MR. HAKLAR: Thank you, Wanda.

12

13           (POWERPOINT PRESENTATION BEGINS)

14

15           MR. HAKLAR: Good evening, everybody.  
16 Wanda actually stole a little about what -- because  
17 I was going to -- going to just recap why we're  
18 here tonight. We are here to discuss, we are here  
19 to explain, to address PCBs in the schools and to  
20 receive your comments and there are two ways that  
21 you can -- that you can send in comments. The  
22 first is by regular mail to me at this (indicating)  
23 address or if you want to send it electronically,  
24 send it to this e-mail address (indicating), and  
25 both of these addresses are on the flyers, so -- so

1 you have several ways of doing that.

2           Okay. Let's talk a little bit about  
3 PCBs, just to bring everybody up to speed. What  
4 are PCBs? PCBs are not natural; they are from  
5 man-made chemicals. They are no longer  
6 manufactured. They were -- they were made from  
7 about 40 to 50 years, from about the 1930s to the  
8 late '70s, but -- and -- but because they are  
9 hazardous and may potentially cause cancer, they  
10 were banned by EPA Guidance in the late '70s.

11           Now, PCBs were like the magic chemical.  
12 They were widely used in the industry. They had  
13 very special properties that made -- that made them  
14 valuable. They were used in electrical components,  
15 they created electrical insulating abilities, they  
16 were also used in building materials. Just to give  
17 you an example, buildings typically had caulk and  
18 PCBs would be added to the caulk to keep the caulk  
19 flexible and -- and to make it last a long time.  
20 So, how did we -- how did we get to this point  
21 where PCBs are there? Well, we know that PCBs are  
22 in New York City schools. Well, several years ago  
23 there were individuals that took samples of  
24 building caulk and sent them to a lab and the  
25 results were PCBs, and so the levels -- levels were

1 higher than our regulatory levels and the results  
2 were sent to us and also sent to the New York Daily  
3 News. After we looked at the results, we really  
4 saw that it was -- it was an issue here. And, we  
5 got together with New York City School Construction  
6 Authority initially, and we sat down and then we  
7 basically came up with a formal agreement, which we  
8 call a consent agreement, and it's an agreement for  
9 New York City to address the PCBs.

10 And, now let's talk a little bit about  
11 this agreement. The agreement is about 4 1/2 years  
12 old. It required New York City to perform a study  
13 of five older school buildings, and the reason why  
14 we -- why we state, or why we specify, older school  
15 buildings is because the older school buildings had  
16 PCBs within their building material; and this study  
17 we call a Pilot Study. And, based on the results  
18 of that study, New York City prepared a report on  
19 what they found and how do we go forward in  
20 addressing PCBs in the schools.

21 So, at this point, I'm going to -- I'm  
22 going to give the microphone to Ed Gerdts, and he  
23 will talk a little bit more about the Pilot Study.

24 Thank you.

25 MR. GERDTS: Thank you, Jim.

1                   My name is Ed Gerdtts; G-E-R-D, as  
2     in David, T as in Tom, S as in Sam. Ed Gerdtts from  
3     TRC Environmental Corporation and we represent the  
4     City as the environmental consultant for the PCB  
5     Pilot Program.

6                   I'm here to talk a little bit about the  
7     program, some of the history, introduction to the  
8     program, background, some of the sampling results,  
9     go over the Preferred Citywide Remedy, and then  
10    talk about some of the things that we're going to  
11    be doing.

12                  PCBs, in general, were widely used. Jim  
13    mentioned that. You know, 1.4 billion pounds were  
14    produced in the United States and used in a lot of  
15    applications because of its properties. It was  
16    found in insulating properties. It was used in  
17    caulk since the 1950s up to 1979. The use of caulk  
18    was not just limited to New York City, but anyplace  
19    in the country. PCBs were added to caulk because  
20    of their properties of elasticity. Banned in 1978.  
21    And in 2009, there was some guidance that came out  
22    from the EPA about how to address PCBs when caulk  
23    became an issue. The Pilot Study, Jim mentioned,  
24    is part of a consent agreement and it is to address  
25    PCBs in caulk. Five pilot schools were selected to



1 be part of the Pilot Study and it's the first and  
2 only of its kind in this level of scope throughout  
3 the nation. It provided a lot of information prior  
4 to implementing this study. The focus of the study  
5 was to evaluate different remedial alternatives,  
6 from what we do to PCB caulk and its presence, the  
7 things that are practical applications of what we  
8 thought might be good remedial methods, what we can  
9 do, how should we address this caulk that is widely  
10 spread throughout many buildings in the United  
11 States, and the school districts that are vintage  
12 buildings, and what are some of the things that we  
13 can do to address it. So, we went to do this  
14 evaluation; encapsulation of caulk, removal and  
15 replacement of caulk, patch and repair of caulk,  
16 and then removal of windows with PCB caulk. So,  
17 those were the initial Pilot Study remedial actions  
18 that we wanted to evaluate. And what we found is  
19 while we were doing that evaluation, we also found  
20 that there are other potentially more significant  
21 sources of PCBs in caulk; and in particular, there  
22 were light fixtures that have PCB ballasts  
23 impacting the air concentrations, and so we said we  
24 should evaluate that as well. So, in 2011, we  
25 added evaluation of the light fixtures in boroughs

1 that housed them. We picked -- there is a school  
2 in each of the boroughs; so, 178 in the Bronx was  
3 patch and repair; and 199M removal; 309K in  
4 Brooklyn, the encapsulation of caulk; 3R, light  
5 fixture replacement; and window replacement at  
6 183Q. Ultimately, because of the results that we  
7 were getting, we ultimately removed all of the  
8 light fixtures in each of the pilot schools as well  
9 because of the magnitude of the issue of repairs to  
10 the caulk.

11           The Pilot Study used this protocol; such  
12 as the pre- and post-sampling, so we did some pre-  
13 and post-sampling in air and dust, so we took some  
14 air samples. We took wipe samples to evaluate the  
15 concentration of PCBs in dust and then exterior to  
16 the building, it was soil sampling, which is  
17 typically done as part of any kind of capital  
18 improvement project that involves PCB caulk in the  
19 exterior of the building. And we took those  
20 samples in the same location and essentially we're  
21 looking to see the difference in the concentration  
22 pre- and post-remedial activity. And this is what  
23 we found on the wipe samples; we took over 430 dust  
24 wipe samples and all of them were below the EPA  
25 Guidance, except for one, which we feel was an

1 anomaly, because when we went back to that same  
2 location, we did not find any level of dust.

3 So, the message is that routine  
4 housekeeping that's done was effective in keeping  
5 the concentrations below the values.

6 We also took a lot of air samples, over  
7 1,000 air samples, pre and post, and essentially  
8 what we found is there was some reduction after  
9 these remedial actions that were performed on  
10 caulk, but the levels were still somewhat elevated  
11 in many cases, and then we identified that there is  
12 PCBs in light fixtures, in the ballasts. We  
13 addressed that, we removed that, took another round  
14 of air samples and we found that, that was a  
15 greater -- had a greater positive impact in the air  
16 concentration, so they were reduced more greatly  
17 after the fixtures were removed.

18 Ultimately, as part of the completion in  
19 the findings of this study is that PCB in buildings  
20 is a complex issue. It could be present not just  
21 in caulk, it could be present not just in light  
22 ballasts; it can be present in other secondary  
23 sources. The light fixtures should be addressed  
24 first. It has the highest concentration of PCBs  
25 and the highest potential for exposure. PCB caulk

1 should be managed on an ongoing basis. And, there  
2 could be PCBs present in other building materials,  
3 which we found in one of the studies, so ultimately  
4 we feel that more research is necessary.

5           One of the big findings of the study was  
6 the ballast issue. And, as a result of the ballast  
7 issue, the SCA has embarked on a very aggressive  
8 ballast removal program throughout the City, so by  
9 the end of 2016, all of the PCB ballasts will be  
10 removed from the entire New York City school  
11 system. So, that's a very large project. It's  
12 ongoing. There's 173 buildings that are ongoing  
13 with 238 that have been completed, so we're well on  
14 our way to -- we're are well on our way to getting  
15 to that -- getting to that completion date of the  
16 removal of all the PCB ballasts in the schools.

17           The CAFO and the Pilot Study, and the --  
18 the attempts, you know, we found out a lot of  
19 information that we didn't expect; that is, things  
20 did not go as planned in that perspective. Our  
21 expectation was encapsulation would work. We found  
22 it did not actually work. When we removed caulk  
23 and we replaced the caulk, we found that there was  
24 PCB contamination. So, it's a complex issue. And  
25 therefore, ultimately, there were additional

1 studies that needs to be performed. There are --  
2 this recommendation was forwarded to EPA and EPA is  
3 involved in a study as we speak, but ultimately,  
4 the citywide remedy currently includes this fixture  
5 removal program that we've been discussing -- been  
6 discussing. There's also an agreed protocol to  
7 inspect and address the ballast issues as they  
8 arise in the school system. Best management  
9 practices for the PCB caulk. Best management  
10 practices plan was developed for this issue to  
11 address PCB caulk on an ongoing basis, to inspect  
12 and remediate caulk, if necessary, and to inspect  
13 and maintain ventilation systems. Importantly,  
14 during capital improvement projects, we are going  
15 to be addressing windows and boards and other  
16 building materials that are associated with PCB  
17 caulk. We are going to be impacting those  
18 materials; the caulk is addressed as part of that,  
19 and the removal is part of that, in terms of a  
20 specific process, that protective measures have  
21 been taken to do that removal. And, likewise, when  
22 we do those projects, the soil around the buildings  
23 are evaluated as well and addressed. We will focus  
24 on a long-term monitoring program that's  
25 implemented, it's been approved and will be ongoing

1 going forward and includes annual air sampling. So  
2 we will be continuing with air sampling, doing this  
3 evaluation of the heating and some additional caulk  
4 sampling and continue to do additional wipe  
5 sampling, but the bottom line is: We're in the  
6 process of doing all those preferred remedial  
7 steps, and then in addition, we are in the process  
8 of embarking additional studies as we comprise more  
9 data and information on PCB issues.

10 With that, I will hand the mic to Jim.

11 MR. HAKLAR: Great. Thank you, Ed.

12 One thing that I just want to expand a  
13 little bit about what Ed said; he used the term  
14 "CAFO," which is the Consent Agreement and Final  
15 Order. That is our formal agreement with the City,  
16 that Ed mentioned early on.

17 So the Pilot Study was done. The report  
18 was submitted. What were the next steps? In  
19 accordance with the agreement that -- that we have  
20 with the City, EPA was required to hold what's  
21 called a peer review of the City's report. So,  
22 what is a peer review? Think of it as if you --  
23 think of it as a situation as if you were writing  
24 something and you gave what you wrote to an  
25 independent party to review to make sure that there

1 weren't any errors or mistakes. That's what a peer  
2 review was. Okay. So, a couple points about the  
3 peer review. The peer review was what we call  
4 independent. EPA's contractor had managed the peer  
5 review process itself. We did not have any direct  
6 contact with the peer reviewers themselves. There  
7 were three peer reviewers; two were from private  
8 industry or environmental field, and one was from a  
9 major university. And, EPA provided -- we provided  
10 our consultants with a series of questions for the  
11 peer reviewers to answer. And before that, before  
12 we provided those questions to our consultants, we  
13 actually shared them with the university to get  
14 their input as well. And, once the peer reviewers  
15 did their job and they provided our consultant with  
16 their responses, the consultant assembled all the  
17 responses into what we call a peer review report.  
18 EPA looked at and reviewed that report and  
19 prepared, I guess you'd call it a summary document  
20 with our perspective on how the peer review went  
21 and different aspects. And, both of those  
22 documents can be found at the website at the bottom  
23 of this slide.

24               So, let's talk about the major findings  
25 of the peer review. And, to start with the overall

1 report itself, the peer reviewers felt that the  
2 report was comprehensive. It had a lot of  
3 information in it. And that the -- that the  
4 City -- the City's consultants used appropriate  
5 methods during the investigation and field work.

6 Now, one thing -- one of the questions  
7 that we've asked the peer reviewers to look at  
8 concerned the issue of light -- of the light  
9 failures in the City schools. Older fluorescent  
10 lights have an electrical component called a  
11 ballast inside of it and that ballast is necessary  
12 to have the lights properly operated. When -- in  
13 very old fixtures, these ballasts can have PCBs and  
14 when the ballasts fail, there's a possibility  
15 that -- that you can get smoke or leaking PCB out  
16 from -- out from these electrical components. And  
17 New York City has established a protocol to  
18 responding to those types of situations. Just  
19 very, very generally, it involves evacuating the  
20 area where the ballasts -- where -- where the  
21 ballasts fail, it involves notifying the proper  
22 authorities, EPA, the students, the school  
23 community, it involves ventilating to get fresh air  
24 in, and it also involves sampling. That sampling  
25 that the City does is what we call wipe sampling



1    where they -- where they -- where a pad would be --  
2    would be swiped across a surface, much like what  
3    you would do when you would wipe for dusting, and  
4    then that, whatever is picked up by that pad, is  
5    sent for lab and tested for PCBs.

6               Our question to the peer reviewers dealt  
7    with this wipe sampling and whether or not wipe  
8    sampling alone was adequate, and some of the peer  
9    reviewers believed -- believed that wipe sampling  
10   alone was not adequate.

11              Ed Gerdtz discussed the different  
12   approaches that were used in the Pilot Study to  
13   address PCB caulk. We've asked the peer reviewers  
14   to -- to come up with other potential ways to  
15   address PCB caulk and one of the things that you --  
16   that you have to realize with PCBs is that PCBs,  
17   they can move around. They're what we call mobile.  
18   If you have caulk with PCBs against a masonry wall,  
19   there's a good chance that those PCBs will move  
20   from the caulk into the -- into the adjoining  
21   material, so -- so we really don't want that  
22   happening. Also, PCBs can move from the caulk  
23   into -- into the air. And, what EPA has found is  
24   that -- that the PCBs in the air really represents  
25   the greatest potential for someone to get exposed

1 to PCBs. So, what the peer reviewers recommended  
2 to try and deal with -- with PCBs in the caulk are  
3 to look at things like -- like physical barriers;  
4 plastic tape, gypsum board, or -- or -- or -- or  
5 metal strips, or even looking into chemically  
6 treating the -- the -- the -- the caulk that has  
7 PCBs to lower the concentration.

8 Now, one of the other things we asked  
9 the peer reviewers to -- the peer reviewers to do  
10 concerned the -- the issue of prioritizing schools  
11 to -- to deal with PCBs. We've got potentially  
12 hundreds of schools that have PCBs in their  
13 building materials. It's a big City, a big  
14 situation, a big scope; how do you prioritize  
15 schools? So, and -- and the -- and the question  
16 really -- really was -- was asked in line of: Do  
17 you -- do you -- do you proactively look at  
18 these -- at -- at these schools or do you wait for  
19 routine construction, renovation, or -- or --  
20 or -- or building damage. And, all three  
21 reviewers -- or some of the peer reviewers believed  
22 that proactively addressing PCBs was a good thing,  
23 that -- that it would reduce exposure. And all  
24 three believed that air sampling would be an  
25 effective component of prioritizing the schools.

1                   One of the other components or one of  
2   the other -- other factors that -- that the peer  
3   reviewers looked at was -- dealt with ventilation.  
4   It's very important to -- to have good ventilation  
5   in the schools, and all the -- the peer reviewers  
6   recommended that the ventilation be optimized and  
7   the best that it can be to minimize the PCB  
8   concentrations in the air.

9                   We also asked them about what's called  
10   housekeeping or -- or what we call best management  
11   practices. If you recall from -- from a few  
12   minutes ago, I had mentioned that PCBs were put --  
13   were typically put in caulk to keep it flexible  
14   and -- and -- and -- and pliable, and if you were  
15   to look at -- at caulk with PCBs in it, some of  
16   this caulk, it -- it -- even though it's 40 or 50  
17   years old, it would look like it was put in last --  
18   last month because it still has that flexibility,  
19   which is what we call pliable. And, what we've  
20   asked the peer reviewers was: Do we -- does the  
21   housekeeping focus on what -- what looks like  
22   intact caulk, flexible caulk, does it look at  
23   just -- just old, brittle, flaking caulk or do we  
24   look at both? What do we do? And, the peer  
25   reviewers, they -- they gave varied -- varied

1 responses: Some said -- you know, one said focus  
2 on one type of caulk for PCBs; some, another type  
3 of caulk.

4 And, now we come to the soil around the  
5 schools. We believe that when -- when PCBs are  
6 found in the soil across the buildings, that it was  
7 most likely the result of old construction  
8 practices where maybe little bits and pieces of PCB  
9 caulk were -- fell to the soil and that's how the  
10 PCBs got -- got there, but we asked the peer  
11 reviewers: Does it make sense to -- to proactively  
12 address this as opposed to dealing with it during  
13 the normal course of -- of building construction  
14 and renovation, and the peer reviewers really  
15 didn't believe that it was necessary to proactively  
16 go out there and -- and -- and look for PCBs and  
17 deal with it, that -- that dealing with it during  
18 normal -- normal renovation site is -- would be  
19 appropriate.

20 Okay. So let's talk a little bit about  
21 the next steps. We are taking your public comments  
22 until June 30th, and then in accordance with our  
23 consent agreement, we will be -- will be -- will be  
24 looking at the peer review responses and also your  
25 public comments, and we may incorporate revisions

1 to the City's Preferred Citywide Remedy. Again,  
2 that's in accordance with our agreement with the  
3 City. And, one other point, the Preferred Citywide  
4 Remedy acknowledged some information gaps and after  
5 discussing these with the City, EPA suggested two  
6 areas for further research; one was testing the  
7 different sampling methods for the indoor air and  
8 caulk, and the other was -- was really to -- to --  
9 to refine what is the contribution of -- of --  
10 of -- of caulk and other building materials that  
11 contain PCBs to the indoor air. We know that --  
12 that the light ballasts contribute a lot of PCBs in  
13 the indoor air, but how much does the caulk  
14 contribute, or how much does PCBs in paint, or --  
15 or in the other -- the other building materials.

16 And, what I'd like to do on -- on --  
17 on -- just to wrap this up, a couple of points to  
18 remember. A lot of good work was done during the  
19 Pilot Study, good scientific work. We really do  
20 have an understanding of where PCBs are in -- in  
21 schools. And, really by -- by the City removing  
22 these PCB-containing light fixtures, they're  
23 addressing a major source of PCBs in the schools.

24  
25 (POWERPOINT PRESENTATION ENDS)

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MR. HAKLAR: And last, but not least,  
your comments really do matter. So, at this point,  
we are going to get to our section of comments and  
questions.

(COMMENTS AND QUESTIONS SESSION)

MS. AYALA: We're opening up the  
floor now for questions and comments. And, I just  
want to acknowledge that directly to your right, we  
have a stenographer here; so there will be a  
transcript of this meeting, so everything that you  
say is going to be recorded.

Questions and comments?

MR. KRAFT: Will all the meetings  
be recorded?

MS. AYALA: Yes.

MS. HALL: Hi, I'm Imani Hall with  
Norwood News. All I want to know is: Are there  
still schools being tested for PCB?

MR. HAKLAR: The question was:  
Will schools be tested for PCB?

MR. GERDTS: Yes. The last -- in one  
of the last slides, talked about, you know, that

1    what we're going forward with is a long-term  
2    monitoring plan.  So yes, there is, on a routine  
3    basis where we'll be air sampling twice a year in  
4    all the pilot schools.  And then we're also talking  
5    about some other additional studies as well to  
6    perhaps -- that will be additional to that, but --  
7    but the long-term monitoring, we're committed to  
8    doing sampling twice a year for each of the pilot  
9    schools.

10               MR. HOLDEN:  The sampling will be  
11    on an ongoing basis.

12               MR. GERDTS:  Right.  It's on an ongoing  
13    basis that there will be sampling.  So anytime  
14    there's a capital improvement project, such as a  
15    big capital job, any caulk that's impacted, and any  
16    impact associated with that job, is reviewed prior  
17    to work, so that if it is PCBs that's going to be  
18    impacted, it's handled properly.

19               MR. GORMAN:  And, between now and  
20    December 2016 is when the last PCB-containing  
21    lights, wherever there's a ballast in the question,  
22    will have been removed from the classrooms.

23               Any other questions or comments on  
24    the remedy or the peer review?

25               MS. GIORGIO:  Hi, my name is

1 Christina Giorgio. I'm an attorney with the New  
2 York Lawyers For The Public Interest, and our  
3 office has worked on the question of PCBs in our  
4 public schools for a number of years. And, I do  
5 want to acknowledge the really enormous task that  
6 the City has undertaken, wherein the EPA, and just  
7 acknowledge the tremendous amount of work that's  
8 being put into this program.

9           You know, we've been really fortunate to  
10 have a lot of really great people helping us to  
11 learn about PCBs. And, when I reviewed the  
12 proposal, of course, I sent it out to people who  
13 know more about this than I do, and so my concerns  
14 are informed by people who are very knowledgeable.  
15 And also, some things just kind of jumped out at me  
16 as a lay person; and I just, you know, say these  
17 things to be helpful, not to be critical, but some  
18 of the things that I would hope would be evaluated  
19 for reconsideration and modification, would be the  
20 issue of the re-occupancy protocols and  
21 supplementing the -- the wipe tests with -- with  
22 air tests. There are not that many schools,  
23 fortunately, that really have -- continue to have  
24 ballast failure. And, we're not having a press  
25 conference today nor are we giving a settlement,



1 but, in fact, that's not -- you know, we're very  
2 pleased that the lights will be gone and that type  
3 of additional supplement, you know, should be  
4 unnecessary relatively soon, so that would be a  
5 real piece that we would like to see in  
6 augmentation.

7 I don't really know of how parents can  
8 feel confident that the rooms are safe within the  
9 schools with the way the air is tested.

10 Also, I would just caution the plan  
11 designers on putting too many eggs in the  
12 ventilation air basket. Nobody knows better than  
13 Mr. Holden, the challenges that the schools face  
14 with regard to maintenance. There are systems --  
15 some of the schools that are here are some very,  
16 you know, great buildings and it's new and very  
17 highly functioning and top notch; but there's a lot  
18 of schools that just -- you know, they're just a  
19 state, and Jim talked about it, of disrepair; and  
20 so I would just be concerned about too much of a  
21 fixing focusing on the ventilation without some  
22 real clear assurances that the ventilation systems  
23 will continue to function properly every single  
24 day, so that's something that I'd like to  
25 highlight.

1           Also, just with regard to the EPA, I'm  
2 not sure why the peer reviewers weren't asked about  
3 the appropriateness of doing the air testing with  
4 the windows open. The EPA, of course, has done,  
5 you know, a tremendous work and I'm very grateful,  
6 but the EPA did have the ability to ask valued  
7 questions to the peer reviewers and that one was  
8 not asked and I wish it had been because it would  
9 have been terrific to have their feedback on that.  
10 This is one of the things that just, you know,  
11 jumps out at me as a lay person, you know, to  
12 really understand the -- the problem of opening the  
13 windows and even in the winter, there has been a  
14 lot of testing done with the windows open after the  
15 summer, and I just wondered how much we can rely on  
16 the results without having the spectrum of the  
17 windows closed and the windows open. And, again,  
18 I've talked to scientists about this and, you know,  
19 it doesn't seem particularly controversial that the  
20 testing should have been done with the windows  
21 closed and the windows open, so that's a point of  
22 concern.

23           And, I think that's the -- the bulk of  
24 my comments, I might just submit some written  
25 comments, but it'll be a little more comprehensive,

1 but generally. Thank you for, you know, all the  
2 attempts that people have made. And, we know the  
3 whole country is watching New York City and I just  
4 know you want to get it right and will get it  
5 right. And, everybody is going to use New York  
6 City as an example of what's going to be done  
7 across the country; and so I know the highest level  
8 of, you know, scientific analysis and priority for  
9 the occupants of these buildings, so that the  
10 entire country has a protocol as well.

11 UNIDENTIFIED INDIVIDUAL: I have a  
12 question. With regard to the five schools, I know  
13 there are five boroughs that contain those schools,  
14 but what are your thoughts on, you know, how much  
15 we can rely on the monitoring based on the five  
16 schools when you have so many different types of  
17 schools built during that era?

18 MR. GORMAN: Well, a lot of time  
19 was spent selecting the schools that were  
20 representative of typical construction practices;  
21 different types of ventilation systems, and things  
22 like that. Obviously, five schools represent the  
23 1300 schools in the whole system. You know, it's  
24 not just a statistically- representative sample,  
25 but the idea was to pick schools where we could

1 test these techniques in them. And -- and, you  
2 know, the techniques, such as encapsulation or  
3 replacing with new caulk, patch and repair. The  
4 characteristics of the school didn't matter so much  
5 whether those processes worked. The ventilation  
6 system; we did evaluate schools with different  
7 types of ventilation systems called the Pilot  
8 Study. If you have specific schools you think  
9 should have been included because they are  
10 absolutely different, then submit those comments to  
11 us and then we can discuss that with the City.

12 Do you want to say anything else about  
13 it, Ross?

14 MR. HOLDEN: Just to add to your  
15 comment, there are different types of ventilation  
16 systems --

17 MR. GORMAN: Right.

18 MR. HOLDEN: -- with different  
19 vintages (speaking without microphone).

20 MR. GORMAN: Different vintages.

21 MR. HOLDEN: Right.

22 Christina, the other comments you made,  
23 are they just for the record or do you want us to  
24 try to respond to them now as well?

25 MS. GIORGIO: (Speaking without

1 microphone.)

2 MR. GORMAN: Okay.

3 MS. GIORGIO: (Speaking without  
4 microphone.)

5 COURT REPORTER: Microphone  
6 use, please and thank you.

7 MR. GORMAN: All right. Her response  
8 was that, you know, she would be happy if we  
9 responded tonight because it's on the record.  
10 That's okay too, so we can give quick responses to  
11 some of that now.

12 With the opened and closed issue with  
13 the windows during the air monitoring. We  
14 discussed it internally for a long time. You know,  
15 we had differences of opinion with the EPA across  
16 the country on that. We opted to use the method of  
17 sampling under normal operating conditions  
18 throughout the schools in the classrooms.  
19 Generally, the windows are opened wider in the  
20 warmer months than they are in the colder months  
21 and that's the approach that was used to try to  
22 represent normal operating conditions in the  
23 classrooms. Closing the windows, and have sampling  
24 with that, would give potentially the worst-case  
25 scenario, but that's not how the classrooms

1 normally operate. In most of those classrooms, the  
2 windows are generally opened. That's the way the  
3 windows were designed to have a certain amount of  
4 fresh air in these rooms with windows. Most of  
5 these schools didn't have active ventilation  
6 systems. They had a vent on the roof and the  
7 system operated by pulling fresh air in through the  
8 windows. The original windows in the schools were  
9 not airtight. The newer windows that were put in  
10 place that were screwed airtight, it's a necessity  
11 to have fresh air coming in through those windows  
12 with a ventilation system to operating.

13 Anything else?

14 MR. GERDTS: Yes. In the case of  
15 like 178S where it had a major AC system, that is  
16 designed to have the windows closed and remain  
17 closed. In addition to that, when it's winter, we  
18 obviously didn't sample with the windows open  
19 because that's not really normally how it operates,  
20 but in the warmer months, as you said, you do have  
21 to crack the windows to represent normal operating  
22 conditions; but in 178, you do not open the windows  
23 because 178 has a major AC system, it's got air  
24 conditioning, so those would control the air, and  
25 that's an accurate test.

1                   MR. GORMAN: Yes, and two of them  
2 had samples taken with the windows open when it was  
3 cold in winter months, you see a big difference in  
4 results on them.

5                   MR. GERDTS: We did. The only  
6 issue was in the summer when the windows were  
7 closed and the temperatures were skyrocketing, and  
8 we didn't think that was representative of normal  
9 conditions. I don't think a teacher can work in  
10 those conditions.

11                  MR. GORMAN: Yes, Dan.

12                  MR. KRAFT: I have a question and a  
13 comment.

14                   My name is Dan Kraft, and I'm a  
15 former EPA employee; and for 30 years, I was chief  
16 of the toxic substances section; and I enforced the  
17 PCBs in my section in Region 2. And, I am -- I am  
18 concerned about the window air sampling. The City  
19 did a study of the air exchange rates; that -- that  
20 normally would be achieved when the ventilation  
21 systems were on, and they began when the windows  
22 weren't open, and they used a tracer gas study  
23 to -- to get a handle on the exchange rates and  
24 they found that when the windows were open, that  
25 the number of air exchanges during the course of

1 the sampling period, which is about six and  
2 three-quarters hours to collect a PCB sample in the  
3 classroom, and I'm not -- looking at the air  
4 exchanges, it would be from 15 to 45. So, if you  
5 open the windows and you let outside air in; that  
6 is, you're getting a breeze; they shouldn't be  
7 testing and monitoring to detect for PCBs. Fifteen  
8 times exchange in the area of 45 times exchange in  
9 the air, well, what -- what does that sample tell  
10 you? You get introduced to a second variable;  
11 you're looking to find out the PCB concentration,  
12 but you're receptive variables impact with the  
13 outside air, you're ruining that sample. In a  
14 school study in the Bronx, P.S. 178, it has a  
15 different kind of system, air ventilation system,  
16 that handles a group of rooms at a time. The first  
17 set of preliminary samples show, I believe, I'm  
18 just recalling this off the top of my head, 50  
19 percent of the rooms tested, the windows were  
20 closed, but their air ventilation system was  
21 operating; 50 percent of the rooms tested did not  
22 meet the EPA guideline. Then they did their patch  
23 and repair remediation, tested again, and the  
24 results were worse; more rooms didn't meet the EPA  
25 guideline. And, it was about that time that the



1 problem with leaking PCB ballasts in P.S. 309 was  
2 discovered and so the City agreed to replace all  
3 the fixtures in P.S. 309, P.S. 199 and P.S. 178 to  
4 replace all fixtures. And after they replaced  
5 fixtures, they did additional amount of sampling  
6 and all the classrooms still did not meet the EPA  
7 criteria and they then evaluated the air handling  
8 system and they found that the louvers that open to  
9 the outside air were not operating properly and the  
10 status to the computer was not accurate, so they  
11 thought they were getting outside air, but  
12 apparently they weren't getting what they thought,  
13 so they fixed the system and once they fixed the  
14 system, all the classrooms met the standard, the  
15 guideline. One piece of technical information  
16 that's not included on this, I haven't found it in  
17 the reports, is what percentage of the makeup air  
18 is normally used in a school like P.S. 178 and what  
19 were the -- what were the percentages in schools  
20 after the -- the system was fixed.

21 So, I'll leave it at that for this  
22 meeting in the Bronx.

23 MS. AYALA: Thank you.

24 MR. GORMAN: Okay. To respond to  
25 part of what you were saying is: I think what the

1 testing showed is that the normal operating  
2 conditions weren't good at highlighting the PCBs in  
3 classrooms. The system was working properly. We  
4 were getting outside air. That's why part of our  
5 approach here is to operate the ventilation  
6 systems, testing takes place in the schools to try  
7 to ensure that PCBs in that scenario are removed  
8 by, under normal operating conditions -- by the  
9 ventilation system with the windows open or closed  
10 and when the temperature moves. We would have the  
11 re-test.

12 MR. HOLDEN: (Speaking without  
13 microphone).

14 MR. GORMAN: Right. And the  
15 lights were removed and that's one of the big  
16 contributing factors if PCBs in the air was  
17 present.

18 MS. GIORGIO: (Speaking without  
19 microphone).

20 COURT REPORTER: Microphone use,  
21 please and thank you.

22 MR. GORMAN: Christina, please  
23 wait for the microphone. Sorry, we can't hear you.

24 MS. GIORGIO: I'm looking at page  
25 18 of the summary report and it's talking about

1 this project and it says that on November 26th of  
2 2010, that air testing was done with the windows  
3 closed as this is representative of normal winter  
4 conditions. And maybe I misunderstood, but, you  
5 know: In 2010, normal operating conditions were  
6 based on P.S. 199 with the windows closed, and then  
7 it seems it isn't the method of testing.

8 MR. HOLDEN: We have to look at it  
9 to see that's what it said (speaking without  
10 microphone).

11 MS. GIORGIO: But that's -- it's my  
12 understanding that subsequent winters, some of the  
13 windows were opened. That's an exhibit.

14 MR. HOLDEN: (Speaking without  
15 microphone.)

16 MS. GIORGIO: And, I understand  
17 that the windows would be open with ventilation  
18 systems, that's the older ventilation systems.  
19 So, you know, I just had pointed -- I believe it's  
20 just the presentation of the report, but it could  
21 be a little bit more clearer on the window  
22 settings.

23 MR. GORMAN: I think what the City  
24 is saying is that the windows were supposed to be  
25 closed at P.S. 199 during the winter months. The

1 individual teachers should be closing those windows  
2 to adjust the temperature. That's not the quality  
3 we're after as the standard protocol, but it does  
4 happen.

5 MR. HAKLAR: Also, what we found at  
6 P.S. 199 was that the windows really need to be  
7 cracked open because what happens is that, that  
8 school has the exhaust system for ventilation and  
9 when the windows are closed and the ventilation  
10 system is up, if you try to open windows to the  
11 outside, you just get -- you just get this pressure  
12 differential that -- that when the air blows  
13 through it, it just -- it just makes the classroom  
14 in disarray. We saw that when we were sampling it,  
15 so really -- it needed to be -- and, we're not  
16 taking about all the way open, we mean just a  
17 crack, just to get -- just to get some air  
18 circulating, so that's how the system operates.

19 MR. GORMAN: One of your other  
20 comments was about air monitoring if the ballast  
21 fixtures are in classrooms, correct?

22 MR. KRAFT: Right.

23 MR. GORMAN: Right. EPA's  
24 position has been that air monitoring should be  
25 conducted prior to occupancy. That's been our

1 recommendation. EPA regulations do require, EPA  
2 Guidance, that was put out actually in the  
3 schools, that school districts should consider air  
4 sampling as part of their process. The City has  
5 their reasons as to why they do not believe in air  
6 monitoring tests. And, if they can explain that.

7 (No response.)

8 MR. KRAFT: (Speaking without  
9 microphone.)

10 MR. GORMAN: Yes, Dan.

11 MR. KRAFT: I have one other question.

12 After the original sampling and the  
13 post-remediation sampling in the three schools that  
14 were done in the summer of 2010 in P.S. 178, 309  
15 and 199, some -- I guess it's really in 2011 with  
16 additional schools. We now saw samples being taken  
17 while air conditioners were operating. Some of  
18 these classrooms had newer air conditioners. Now,  
19 here you have a situation I had asked them while  
20 they were still -- whether the vents were opened or  
21 closed and apparently some of them were open, so  
22 after you were operating the air conditioner, you  
23 can operate, circulate, the air in the room, and  
24 cool that down. You can also open the vent, so  
25 that you can draw outside air in. Cooling it and

1 putting it into the room. I did not see any  
2 indication for the fan speed for the air  
3 conditioners, the cubic feet per minute that the  
4 fans were operating because here you have a  
5 situation where you would be pumping air, outside  
6 air, into the space that you're trying to analyze  
7 for PCB concentration. And, in my 30 years  
8 enforcing the PCB regulations, we collected samples  
9 that was only PCBs. The samples mixed with air  
10 would not be accepted, so just from a simple  
11 scientific standpoint, we tried to limit your  
12 variable to one PCB concentration and not have an  
13 unknown of -- of -- what the effect the air, the  
14 outside air, is as well as the PCB concentration.  
15 A lot of work is done by the City. And, I don't  
16 think it's been determined whether or not the PCB  
17 concentrations in the schools would have been  
18 higher with the ventilation systems turned off.  
19 One of the possibilities is that PCB caulk in and  
20 around windows and in the -- in the superstructure  
21 of the building may allow air to come across the  
22 caulk and come into the building. If you have the  
23 windows closed and the ventilation system's on,  
24 you're creating negative pressure, so you may have  
25 in schools where there were higher levels of PCB

1     caulk in the windows, you may be creating a  
2     situation where you're making it worse by running  
3     your -- your ventilation system. And, I recognize  
4     that ventilation, the vents -- the rooms need fresh  
5     air, I recognize that, but from a -- from a  
6     technical standpoint, it might have been worse  
7     running the ventilation system as opposed to having  
8     everything shut off. What we know today, the  
9     worse-case scenario in a -- in a previously-  
10    unaddressed school where the PCB ballast situation  
11    has not been determined, would be to: Number one,  
12    shut the ventilation system down, turn the lights  
13    on, and make it circulate the air in the room and  
14    take a sample; that would show what the PCB  
15    concentration might be in the air without any  
16    outside influence of additional air, outside air,  
17    or air within the building, being drawn into the  
18    classroom.

19               MR. GORMAN: All right. I don't think  
20    anybody here knows the specifics about how the air  
21    conditioners were operated during those tests, but  
22    we will look into it and see if we can find out if  
23    there is a response somewhere here. And, again I  
24    just want to point out, we understand that the  
25    levels of PCBs in the buildings results will be

1 different under different testing issues. We chose  
2 to test under normal operating condition because we  
3 wanted to know what the children and the teachers  
4 in the classrooms, to the extent of what they are  
5 being exposed to under normal operating conditions.  
6 The other conditions in the test situations you  
7 described are not the ones we are concerned about  
8 in the classrooms at this time because what's  
9 happening when the systems are turned off,  
10 operating in different manners, just wasn't  
11 relevant to the normal school day in operation. So  
12 it's involved maybe in an important -- you know, in  
13 a purely scientific study. Here the idea was to  
14 use the limited resources we have to get the answer  
15 most important to us.

16 MR. GORMAN: Christina, we've gone  
17 away for a while. I don't remember what comments  
18 you had.

19 MS. GIORGIO: Actually, it's okay  
20 to talk about the ventilation system, but it seems  
21 to be, you know, part of the primary focus of the  
22 program.

23 MR. GORMAN: Okay. We understand that  
24 there are different ventilation systems throughout  
25 the school systems with different vintages with



1 different types, some are active and some are  
2 passive, and, the -- part of the remedy here was  
3 when we identify a PCB problem in the classroom,  
4 one of the first steps we do to address that  
5 problem is to optimize the ventilation system,  
6 check it out, make sure it's working to its  
7 designed capacity, as best we can. And, you know,  
8 some of the ventilation systems are many, many  
9 years old and, you know, that's what existed in  
10 those schools, that was the state-of-the-art system  
11 put in the schools when the schools were originally  
12 constructed, you know, and the idea is to make it  
13 as best as we can while working. And, the other  
14 things that we've done is; you know, removing PCBs  
15 from the lighting systems. You know, part of the  
16 long-term plan is to, you know, try to identify  
17 other problem areas in the schools and monitor them  
18 and -- so, you know, some of the things we're  
19 looking at investigating, jointly with the City, is  
20 to evaluate passive air monitoring to its systems,  
21 something that will collect a long-term  
22 comprehensive sampling, not just a one-day  
23 six-to-seven-hour test, and to introduce  
24 side-by-side studies and see if that gives us, you  
25 know, results that we can use that validate the

1 other methods that can potentially identify PCB in  
2 caulk, on the surfaces in the classrooms, that we  
3 might identify where the hotspots are, which  
4 schools should be prioritized to be addressed  
5 before others, because it may be that we can  
6 address these things one by one in the capital  
7 improvement program as we come across it, but if we  
8 can find a method to identify other areas to find  
9 PCBs in building materials outside of capital  
10 improvement products, that will help not only all  
11 the New York City schools, but all the schools in  
12 the country. That's one of the goals the EPA has  
13 in this; you know, it's not just to focus on New  
14 York City, but to come up with some comprehensive  
15 method that you can apply across the country.  
16 Schools have limited budgets. You know, you can't  
17 design a program that every school in the country  
18 has to go in and take thousands of samples in their  
19 buildings to identify where their highest levels of  
20 PCBs are.

21           We're looking for some surrogate method  
22 that will work. And the City is operating with  
23 Pilot schools and studies, and some additional  
24 studies that we're discussing with them, to try to  
25 get to that answer to help them solve this problem

1 nationwide.

2 MS. JONES: Hi, my name is Dejohn  
3 Jones. I'm from District 12.

4 Hi, Christina. How are you?  
5 I'm sorry I'm late.

6 I'm really disappointed. I really  
7 am, but I think -- I'm a learning mom and so this  
8 is very new to me, but I do have some concerns and  
9 questions. I know about the schools, but I also  
10 heard that this is also a problem in project  
11 buildings. Although, I don't live in the projects,  
12 I have friends that live in projects. They have  
13 children. So, I know some of the causes of PCBs.  
14 I know heart disease and cancer is associated with  
15 this. So, I would just like to know what methods  
16 are you all going to undertake for project  
17 buildings?

18 MR. GORMAN: Right. EPA is  
19 obviously aware that PCBs are a problem in  
20 buildings materials outside of the public schools.  
21 We have reached out to the HUD, Housing and Urban  
22 Development, about addressing PCBs in air quality;  
23 to GSA for general services, who needs to respond  
24 to address those situations as well. Again, this  
25 is a wide-spread national problem and we're limited

1 in numbers of people the EPA can work with, but  
2 we're doing what we can in providing guidance and  
3 encouraging them to address the problem. Of the  
4 other agencies GSA we're dealing with, we were  
5 engaging the HUD, starting with daycares and with  
6 public housing, to try and re-evaluate this, you  
7 know, both the PCBs in the lighting fixtures and  
8 PCBs in the building materials. We've actually  
9 reached out to some of the largest public property  
10 managers in the region about this issue. Most of  
11 them reporting back that they've already removed  
12 their old lighting systems for expeditious purposes  
13 and so they don't anticipate that that's a  
14 remaining factor for them.

15 MS. JONES: I don't need to use  
16 the microphone. I can speak out loud.

17 MS. AYALA: Please use the  
18 microphone (handing).

19 MS. JONES: So, I want EPA to tell  
20 me what those efforts are and what they had to do  
21 once you find out that the air is polluted to these  
22 levels? How do you start taking the caulk out?

23 MR. GORMAN: You have to  
24 understand part of the regulatory program as well.  
25 The laws that Congress is passing giving us

1 regulations do not require anyone to look for PCBs.  
2 If they look and find PCBs are present in 50 parts  
3 per million, then they need to be addressed. Okay.  
4 But there's nothing that requires them to look for  
5 it. Okay. So, the only answer, window replacement  
6 involving caulk that takes place in large  
7 buildings, some public housing as well, we require  
8 that they contact us if they sample and they come  
9 to us and we work with them with a cleanup plan to  
10 address that. So, it has happened in certain  
11 situations, but in most cases, since the law  
12 doesn't require them to look for it or sample it,  
13 they're -- they're not jumping up and down saying:  
14 I'm going to be the first one to do this.

15 MS. HALL: Imani Hall. Well, how  
16 do you know where to look right from the start?  
17 How did you know to look at public schools in the  
18 community? And as she said, how do we know that we  
19 shouldn't look at PCBs in projects or we shouldn't  
20 look at PCBs in private homes?

21 MR. GORMAN: Any public or commercial  
22 building that was constructed or had major  
23 construction work going on, on in the period of  
24 1950 to 1979, is a building that we think has  
25 potential to have PCB caulk. We're not aware of

1 any wide-spread use of PCB-contained caulk in  
2 private homes. It seems to be large corporate  
3 commercial buildings, big apartment buildings, you  
4 know, housing authority buildings, courthouses, you  
5 know, government buildings, things of that nature.  
6 How the issue initial got engaged in New York City  
7 over this issue is some parent had sampled a caulk  
8 off school property after window replacements and  
9 then had it analyzed and reported the results.  
10 Okay. So, that initial audit had to be addressing  
11 those specific areas where it's known that there's  
12 caulk above the regulatory 50 parts per million.  
13 And, you know, once we found the PCBs in light  
14 fixtures, it seemed to be a big issue. In fact,  
15 that probably caused the PCB in the air and that's  
16 why New York City work is first. You know, and  
17 that's involving over 700 school buildings and it's  
18 costing the City nearly a million dollars to do  
19 that work, so this isn't a quick fix, so this isn't  
20 a quick fix. The EPA is also keeping in mind that  
21 the New York City public school system is trying to  
22 educate a million children as well and we're  
23 cognizant of that and we want to make sure that,  
24 accordingly, the kids get the educational programs,  
25 as well as the health and safety of the kids.

1                   MR. KRAFT: This is drawing all  
2 these ideas out my head here.

3                   One of the things, as you mentioned,  
4 the PCB regulations don't unauthorize the use of  
5 PCB caulk, so that if caulk is found at 50 parts  
6 per million, it's used, it's unauthorized by the  
7 regulations, prohibited by the Toxic Substance  
8 Control Act, so people are reluctant to test their  
9 materials to find out if they have PCBs, and  
10 they're not required to test. In view of the  
11 results of the Pilot Study, the remove and replace  
12 in P.S. 199 where a pile of the caulk was removed  
13 and replaced with new caulk and it was found  
14 that -- in short order, that the PCBs  
15 re-contaminated at levels above 50 parts per  
16 million. I did not -- have not seen any addressing  
17 of the window caulk in P.S. 199 or P.S. 309. My  
18 recollection is I would ask the City to confirm,  
19 please, at the next meeting what the concentration  
20 was in that caulk. In the window replacement  
21 projects were, I believe, in 2008 and 2009 when all  
22 the windows in those three schools were removed and  
23 replaced. I believe the levels were in excess of  
24 200,000 parts per million. Based on the results  
25 you've -- you've seen, it's very likely that the

1 window caulk in those schools are now a source of  
2 PCBs in the air that is not being considered. It  
3 wasn't considered in the Pilot Study and maybe -- I  
4 know that P.S. 199 was a very difficult school and  
5 a lot of different strategies had to be used  
6 including -- including large activated carbon  
7 filtration into the rooms and operated them to  
8 remove the PCBs from the air, so there may be other  
9 sources of PCBs, but they're not taken into  
10 consideration; one may be the windows and it's an  
11 excellent opportunity to do long-term testing  
12 follow-up because here you have replacement of  
13 caulk that's been replaced several years ago. And,  
14 the other thing I'm concerned about is the exterior  
15 caulk around P.S. 199. In some of the documents  
16 produced, I believe I saw it stating that the  
17 general construction of P.S. 309 in Brooklyn and  
18 199 in Manhattan were similar age and construction  
19 type. The exterior construction is very different.  
20 P.S. 199 has brick work that every 40 feet or so  
21 jets out and over and back in to form what looked  
22 like columns all the way around the building and  
23 every time brick work jets out and comes back in,  
24 it's contacting caulk, brick contacting caulk, and  
25 in some of the testing that was done on the



1 exterior at 199, I think the highest sample was  
2 like over around 400,000 or 450,000 parts per  
3 million, so that can be a significant source of  
4 PCBs that may be finding their way into the  
5 building and causing problems not getting the air  
6 levels there.

7 MR. GORMAN: Okay. We'll go  
8 through some of those records from the schools and  
9 see if we have any written responses to something  
10 like that. I don't think anybody here has an  
11 answer to that. And I know that the peer reviewers  
12 had looked at the issue of external caulk as well.  
13 One of the big contributing factors for PCBs in the  
14 classrooms were met, but we can take another look  
15 at that and see. And, there are other school  
16 districts across the country addressing this issue.  
17 You know, Region 2 of New York City schools did  
18 this through a consent agreement. Most of the  
19 other regions in all, but one of the cases I'm  
20 aware of, are addressing this under a PCB Approval  
21 Program, by getting a risk-based approval, and even  
22 though it's not authorized to use, they're allowing  
23 PCB caulk and other materials to stay in place with  
24 some sort of monitoring being developed for that,  
25 so that may be an approach we're going to look at

1 in the future once we, you know, deal with the  
2 City's caulk remedy and we'll have comments on that  
3 based on public input here. That's something that  
4 we looks at as well, like to do a risk assessment,  
5 you know, on that and make a determination that the  
6 remaining PCB building materials are not  
7 contributing to a health hazard in the classrooms.

8 MR. MADDALONI: Hi, I'm Mark  
9 Maddaloni, EPA Region 2. I'm a toxicologist and  
10 risk assessor. One other indirect method that EPA  
11 is using to learn more about the sources of PCBs in  
12 buildings, in general, not just schools, is the  
13 Superfund Research Program that is jointly  
14 funded through the National Institute of  
15 Environmental Health Sciences and they fund another  
16 large center in the University of Iowa.

17 Were you on the PCB call, Dan,  
18 with the NIH two part PCBs in schools?

19 MR. KRAFT: I was on the second  
20 part; not the first part.

21 MR. MADDALONI: Oh, the first; we  
22 talked more about the Chicago study and the  
23 University of Iowa that was conducted.

24 So, you can go up on that website and  
25 download all the information where they looked at

1 some buildings in Chicago, some sampling of air in  
2 Chicago, and compared it to Iowa under a controlled  
3 environment and you'll find some interesting  
4 things. Nothing as significant as you've seen in  
5 public schools, but there is more research being  
6 done, so it's not as grand, you know, as we think,  
7 plus there's a lot of international investigators  
8 looking at this, so it wasn't limited to this  
9 country. PCBs would literally rock the boat. You  
10 know that saying? You will find some of the  
11 studies in Germany indicate some of their levels  
12 and you can see what we've done and measured there.

13 MR. GORMAN: We've got 15 minutes  
14 left. Any other comments or questions from anyone?

15 (No response.)

16 MR. GORMAN: Okay.

17 MS. AYALA: I'd like to thank  
18 you all for being here this evening. And, next  
19 week we will be at Stuyvesant High School next  
20 Tuesday at 6:30, so if you want to be there, you're  
21 welcome to come, plan to come. The contact  
22 information to provide comments, it's here  
23 (indicating), and it's on the flyers. Please take  
24 one. And, we want to hear your comments, so send  
25 them to Jim Haklar.

1                   Thank you so much and have a good  
2   night.

3  
4                   (THE PROCEEDING CLOSED AT 8:30 P.M.)  
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C E R T I F I C A T E

STATE OF NEW YORK )

: SS.)

COUNTY OF NEW YORK )

I, MARIA R. LUCARELLI, a Notary  
Public for and within the State of New York, do  
hereby certify that the foregoing is a true and  
accurate transcript, to the best of my ability,  
of the within proceeding as reported by me  
stenographically at the place and on the date  
hereinbefore set forth.

IN WITNESS WHEREOF, I have hereunto  
set my hand this 3rd day of July, 2014.

---

MARIA R. LUCARELLI

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